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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,970	02/27/2004	Arkady Borkovsky	50269-0569	6826
73066 7590 12/11/2007 HICKMAN PALERMO TRUONG & BECKER LLP/Yahoo! Inc. 2055 Gateway Place Suite 550 San Jose, CA 95110-1083			EXAMINER LIN, SHEW FEN	
			ART UNIT 2166	PAPER NUMBER
			MAIL DATE 12/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/788,970		BORKOVSKY ET AL.	
	Examiner		Art Unit	
	Shew-Fen Lin		2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,7-11 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 7-11, and 17-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- a. This action is taken to response to amendments and remarks filed on 9/21/2007.
- b. Claims 1, 7-11, and 17-26 are pending in this Office Action. Claims 1 and 11 are independent claims.
- c. Amendments to the specification has been acknowledged and recorded.
- d. In view of the amendment to claims 9 and 10, the Examiner hereby withdraws the pending objection that was given in the previous Office Action.
- e. In view of the amendment to claims 1-2-6, 8, and 11-16, the Examiner hereby withdraws the pending 101/112 rejections that were given in the previous Office Action.

Claim Objections

Claims 1 and 11 recite the limitations "said particular criteria", "the particular criteria", the Examiner suggests using either "said" or "the" as a reference to the same particular criteria previously introduced. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 7-8, 11, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gravano et al. (US Patent 7,146,358, hereinafter Gravano) in view of Weiss et al. (US Patent 6,460,037, hereinafter Weiss)

As to Claim 1, Gravano discloses a method for generating a list of candidate alternative spellings (abstract), comprising:

finding, among a plurality of files, a first file that contains a link that indicates a first spelling that was entered by a user (Fig. 5, column 2, lines 3-5, search documents to locate one or more documents that contains anchor text that matches query term), wherein said link links to a second file (Fig. 5, 530, column 2, lines 6-8);

searching, within said second file, for any spellings that satisfy particular criteria (abstract, Fig. 5, 540, 560, column 2, lines 11-14, using the identified documents [said second

file] to identify one of the possible translations as a likely translation of the search query, column 6, lines 15-21, several possible translations for anchor text to be searched/matched) ;

wherein said particular criteria includes that said spellings are spelled similarly to, but not exactly the same as, said first spelling;

adding, to a list of candidate alternative spellings of said first spelling, all spellings within the second document that satisfy the particular criteria (Fig. 5, column 6, lines 15-21, the query translation engine 340 may use the dictionary and leading to several possible translations and use the text from second document to disambiguate among potential translations, note: it would be obvious to one of ordinary skill in the art to add items to a list when there is more than one); and

storing said list of candidate alternative spellings on a computer-readable storage medium (Fig. 5, 570, Fig. 6, output the translated query [alternative spellings], note that in order to output for display, the query has to be stored either in volatile or non-volatile memory).

Gravano discloses identifying potential translation for terms of query (similar query term) and the potential translated terms have different degree of similarity as the query term (column 6, lines 47-54, for example, the Spanish word "bancos" could be translated as "banks" or "benches" in English, i.e. spelled similarly) but does not explicitly disclose wherein said particular criteria includes that said spellings are spelled similarly to, but not exactly the same as, said first spelling.

However, Weiss discloses wherein said particular criteria includes that said spellings are spelled similarly to, but not exactly the same as, said first spelling (column 3, lines 16-18, strategies such as "compare names for similar spelling", column 4, lines 51-67, The fuzzy search retrieves similar entries from the database [second file]. Similarity is defined by an appropriate

distance measure. For example, the names "Mankovski", "Mankovskii" and "Mankowski" would be considered similar, because they can be derived from each other through simple permutations).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to combine Gravano and Weiss because both references are related to information retrieval, and by including fuzzy search to enable retrieval of words or phases similar to the text search will not only provide variant of the search string but also provide spell check function for the misspelled search string. It is for this reason that one of ordinary skill in the art would have been motivated to include variant of the search string to resolve the differences in the query languages and data format of different databases [files] (Weiss, column 1, lines 28-39).

As to Claim 7, Gravano discloses the method of claim 1, wherein said first spelling comprises multiple words and said second spelling comprises multiple words (column 7, lines 5-16).

As to Claim 8, Gravano discloses the method of claim 1, further comprising: filtering said list of candidate alternative spellings of said first spelling based on a comparison of frequencies of occurrences of said first spelling and frequencies of occurrences of said second spelling (frequency of co-occurrences, column 7, lines 5-15).

As to claim 11, is directed to a computer readable storage medium carrying instructions for performing the methods of claim 1 and rejected along the same rationale.

As to claims 17-18, are directed to a computer readable medium carrying instructions for performing the methods of claims 7-8 respectively and are rejected along the same rationale.

Claims 9-10 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gravano and Weiss as applied to claim 1 above, and further in view of Chang et al. (US Patent 7,127,450, hereinafter Chang).

As to Claims 9-10, Gravano and Weiss disclose the elements of claim 1 as noted above but does not explicitly disclose filtering said list of candidate alternative spellings of said first spelling based on a whether said first spelling is a plural form of said second spelling or vice versa.

Chang discloses removing plural form from query term by normalization (Fig. 2, 44). For example, the word "computers" would have the normalized form "computer" with the plural suffix removed (column 2, lines 48-59).

It would have been obvious to one ordinary skill in the information retrieval processing art at the time of the invention to combine the teachings of the cited references because a normalize term can be used to provide effective searching, such as to identify alternative word spelling related to the term in a directory (Fig. 9, Chang). The ordinary skilled artisan would have been motivated to remove the plural form of a spelling from the list to avoid the redundancy by only including distinct term in the list.

As to claims 19-20, are directed to a computer readable medium carrying instructions for performing the methods of claims 9-10 respectively and are rejected along the same rationale.

As to Claims 21, Gravano discloses the method of Claim 1, further comprising:
receiving, at a search engine, from said user, query terms that contain said first spelling (Fig. 6, 610).

As to Claims 22, Gravano discloses the method of Claim 1, further comprising:
presenting, to said user, one or more spellings from said list (Fig. 6, column 5, lines 61-62).

As to Claims 23, Gravano discloses the method of Claim 1, further comprising:
conducting a search based on query terms in which said first spelling has been replaced
by a spelling from said list; and presenting, to said user, one or more results of said search (Figs. 3, 6, column 5, lines 18-34, receive a search query from a user and respond by returning relevant information or a list of relevant information to the user)

As to claims 24-26, are directed to a computer readable medium carrying instructions for performing the methods of claims 21-23 respectively and are rejected along the same rationale.

Response to Remarks

Applicant's arguments based on newly amended features with respect to claims 1 and 11 have been fully and carefully considered but are moot in view of the new ground(s) of rejection. Refer to the corresponding sections of the claim analysis for details.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shew-Fen Lin whose telephone number is 571-272-2672. The examiner can normally be reached on 8:30AM - 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

December 7, 2007

Shew-Fen Lin
Patent Examiner
Art Unit 2166


HOSAIN ALAM
SUPERVISORY PATENT EXAMINER